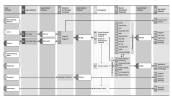
Using the System Templates

العربية (/ar/sanitation-systems/how-use/using-the-system-templates)

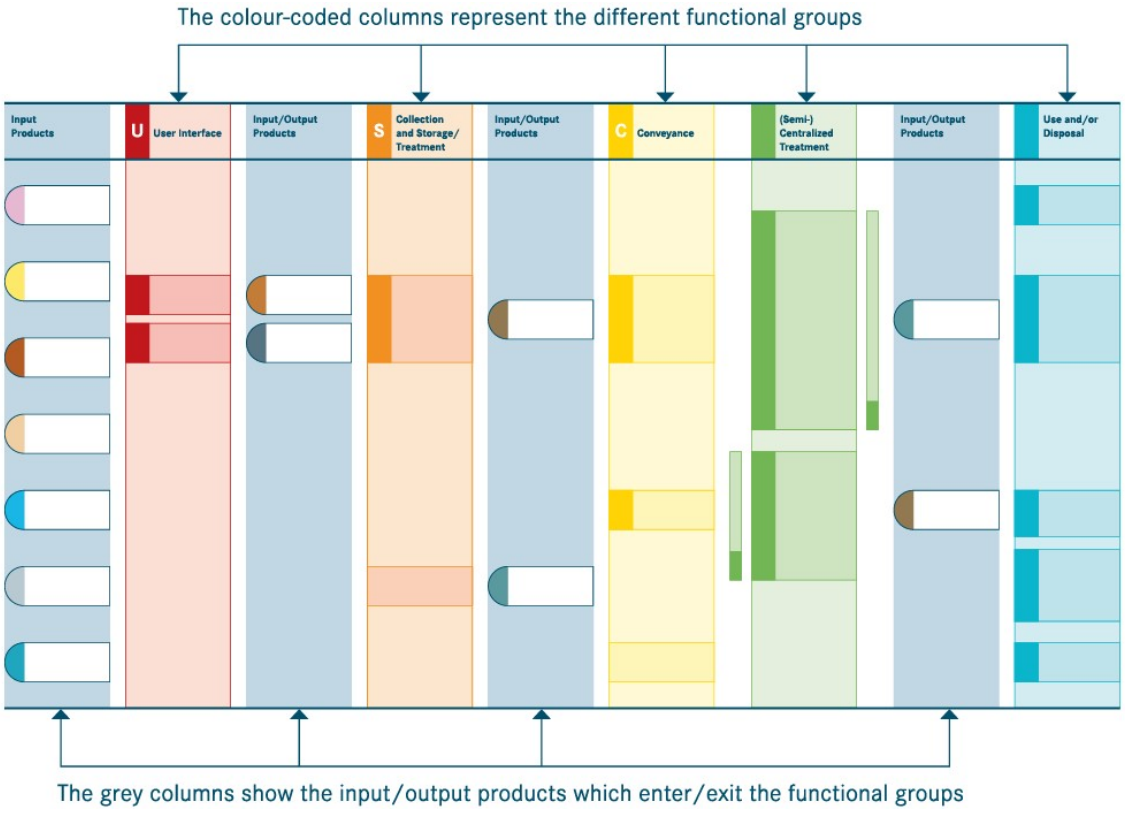


A sanitation system can be visualized as a matrix of **Functional Groups (/sanitation-systems/terminology/functional-groups)** (columns) and **Products (/sanitation-systems/terminology/products)** (rows) that are linked together where potential combinations exist. Such a graphical presentation gives an overview of the technology components of a system and of all the products that it manages.

Products are successively collected, stored, transported and transformed along different compatible technologies from the five functional groups. The output of a technology in one functional group, thereby, becomes the input for the next.

It is not always necessary for a product to pass through a technology from each of the five functional groups; however, the ordering of the functional groups should usually be maintained regardless of how many of them are included within the sanitation system.

The following figure explains the different columns of a system template.


The colour-coded columns represent the different functional groups
Input Products
U User Interface
Input/Output Products
S Collection and Storage/ Treatment
Input/Output Products
C Conveyance
(Semi-) Centralized Treatment
Input/Output Products
Use and/or Disposal
The grey columns show the input/output products which enter/exit the functional groups

Steps for selecting sanitation options using the system templates

The **Sanitation Systems (/sanitation-systems/terminology/sanitation-systems)** present the most logical combinations of technologies. However, the technologies and associated links are not exhaustive and planners should not lose a rational engineering perspective when trying to find the best possible solution for a specific context. Designers should attempt to minimize redundancy, optimize existing infrastructure and make use of local resources, while taking into account the local enabling environment (especially, factors such as skills and capacities, socio-cultural acceptance, financial resources and legal requirements).

The following procedure can be used to pre-select potential sanitation options:

1. Identify the products that are locally generated and/or available (e.g., Anal Cleansing Water, Flushwater or Organics for composting)

2. Identify the system templates that process the defined products

3. For each template, select a technology from each functional group where there is a technology choice presented (box with multiple technologies); the series of technologies make up a system

4. Compare the systems and iteratively change individual technologies or use a different system template based on user priorities, the demand for specific end-products (e.g., Compost), economic constraints, and technical feasibility

It may be useful to divide the planning zone under consideration into sub-areas so that each one has, within it, similar characteristics and conditions. The procedure can then be followed for each of the separate sub-areas, and any number of systems can be chosen.

Parts of a sanitation system may already exist; in that case it is the goal of the planners and engineers to integrate existing infrastructure or services, yet to maintain flexibility, with user satisfaction as the primary goal.

A **blank system template** can be downloaded **here (http://www.eawag.ch/fileadmin/Domain1/Abteilungen/sandec/schwerpunkte/sesp/CLUES/Compendium_Tools_pdfs/template.pdf)**. It can be printed and used to sketch site-specific sanitation systems, for example, when discussing different options with experts or stakeholders in a workshop.

A **PowerPoint template** is also available for **download (http://www.eawag.ch/fileadmin/Domain1/Abteilungen/sandec/schwerpunkte/sesp/CLUES/Compendium_2nd_pdfs/Sanitation_System_Drawing_Tool_Version_1.pptx)** that has pre-defined graphical elements (such as products, technologies and arrows), facilitating the preparation of customized sanitation systems drawings.